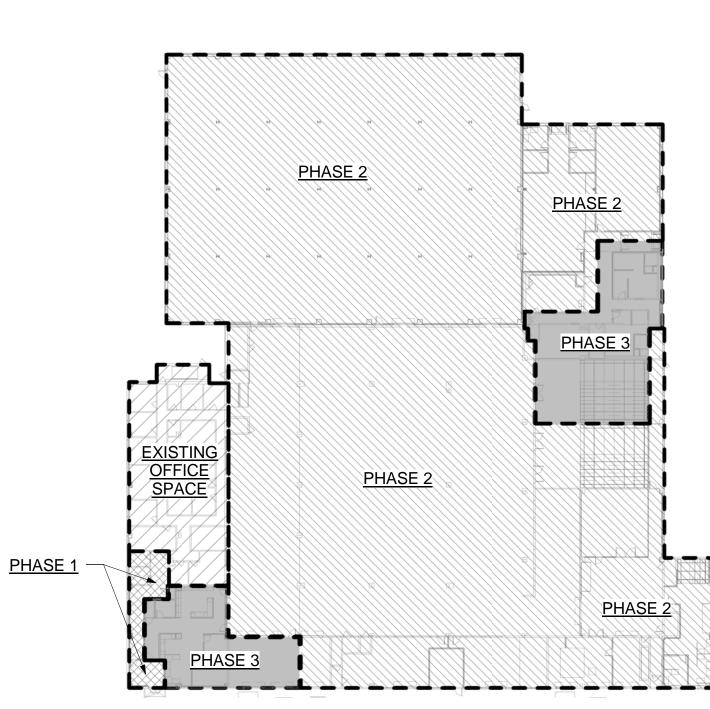


1-0")

SYMBOL LIST NEW WORK LINE TYPE EXISTING LINE TYPE ---- DEMOLITION LINE TYPE - - SPRINKLER ZONE BOUNDARY HYDRAULIC AREA BOUNDARY PHASE BOUNDARY PIPE CONTINUATION 90° ELBOW TURNED AWAY FROM VIEWER TEE TURNED AWAY FROM VIEWER SPRINKLER/STANDPIPE RISER O.S. &Y. CONTROL VALVE WITH TAMPER SWITCH BUTTERFLY CONTROL VALVE WITH TAMPER SWITCH DOUBLE CHECK BACKFLOW PREVENTER ASSEMBLY WITH TAMPERS TEST-DRAIN WATERFLOW SWITCH CHECK VALVE VALVE ON RISER - ZONE CONTROL ASSEMBLY VALVE ON RISER - DRAIN/TEST VALVE FIRE DEPARTMENT CONNECTION - WALL MOUNTED TEST HEADER - WALL MOUNTED **ECCENTRIC REDUCER** CONCENTRIC REDUCER PENDENT SPRINKLER UPRIGHT SPRINKLER K16.8; UPRIGHT SPRINKLER RECESSED PENDENT SPRINKLER HORIZONTAL SIDEWALL SPRINKLER HYDRAULIC NODE INDICATOR KEYNOTE INDICATOR **ZONE ID** SPRINKLER ZONE NUMBER IDENTIFIER **DETAIL NUMBER** DETAIL IDENTIFICATION BUBBLE SHEET DETAIL IS SHOWN ON SHEET DETAIL IS TAKEN FROM SECTION NUMBER



SECTION IDENTIFICATION BUBBLE

SHEET SECTION IS SHOWN ON

SHEET SECTION IS TAKEN FROM



ABBREVIATIONS

- ABOVE FINISHED FLOOR
- AUTHORITY HAVING JURISDICTION ACOUSTICAL TILE CEILING
- **BOTTOM OF BEAM**
- CON CONCRETE SLAB AND BEAMS
- CONC CONCRETE
- CONF CONFERENCE COTR CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE
- CONCEALED SPLINE SUSPENDED ACOUSTICAL TILE CONCEALED METAL SPLINE SUSPENDED ACOUSTICAL TILE
- DEMO DEMOLITION ELEC ELECTRICAL
- EXIST EXISTING FDC FIRE DEPARTMENT CONNECTION
- FLOOR
- FLOW SWITCH
- FEET GYPSUM BOARD ON WOOD OR METAL JOISTS
- INTERNATIONAL BUILDING CODE
- LAT LAY-IN ACOUSTICAL TILE SUSPENDED
- LIGHT HAZARD LAY-IN METAL TILE - SUSPENDED
- MECH MECHANICAL NFPA NATIONAL FIRE PROTECTION ASSOCIATION
- NOT IN CONTRACT
- SERV SERVICE
- STEEL DECK TELE TELEPHONE
- UNO UNLESS NOTED OTHERWISE UON UNLESS OTHERWISE NOTED
- VA DEPARTMENT OF VETERANS AFFAIRS ZN ZONE

NFPA 13 HAZARD CLASSIFICATION

ALL AREAS ARE TO BE CONSIDERED LIGHT HAZARD (0.10 GPM/SQ FT OVER 1500 SQ FT) UNLESS NOTED OTHERWISE. REDUCTION IN DESIGN AREA PER NFPA 13 IS PERMITTED.

- ORDINARY HAZARD, GROUP 1 0.15 GPM/SQ FT OVER 1500 SQ FT
 - ORDINARY HAZARD, GROUP 2 0.20 GPM/SQ FT OVER 1500 SQ FT
 - SPECIAL HAZARD REFER TO DESIGN CRITERIA

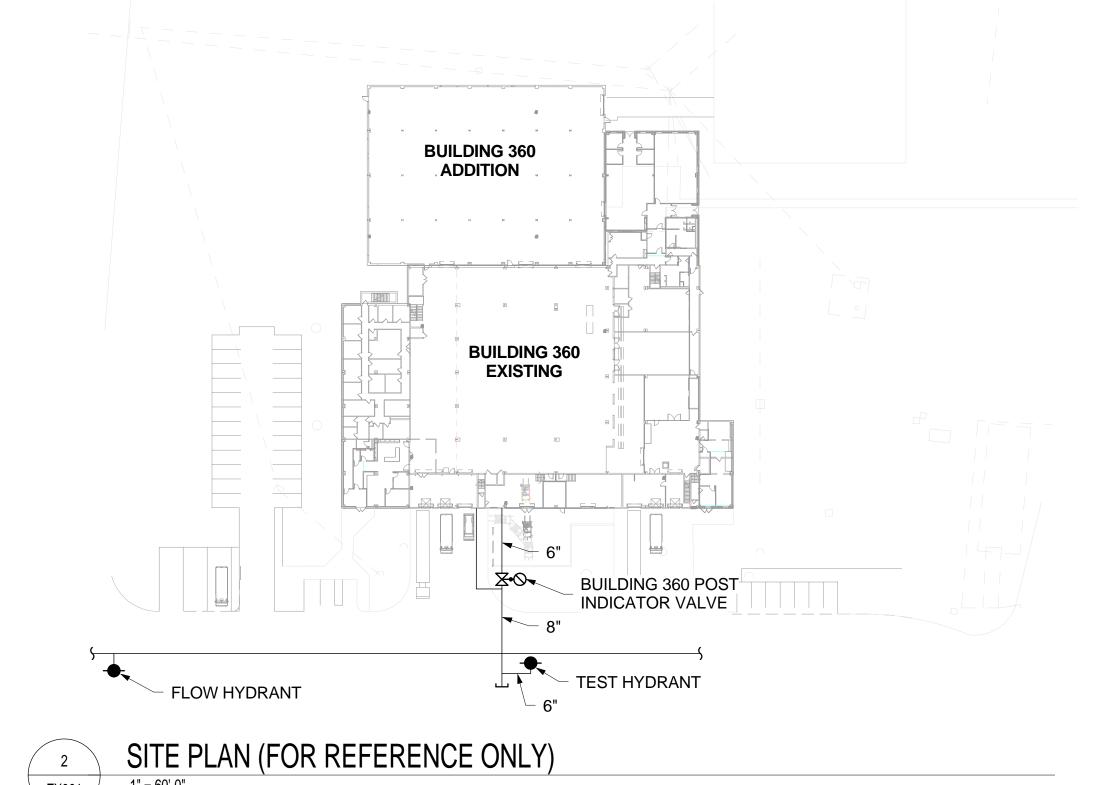
WATER SUPPLY INFORMATION

11:30 AM PERFORMED BY: GHD, INC.

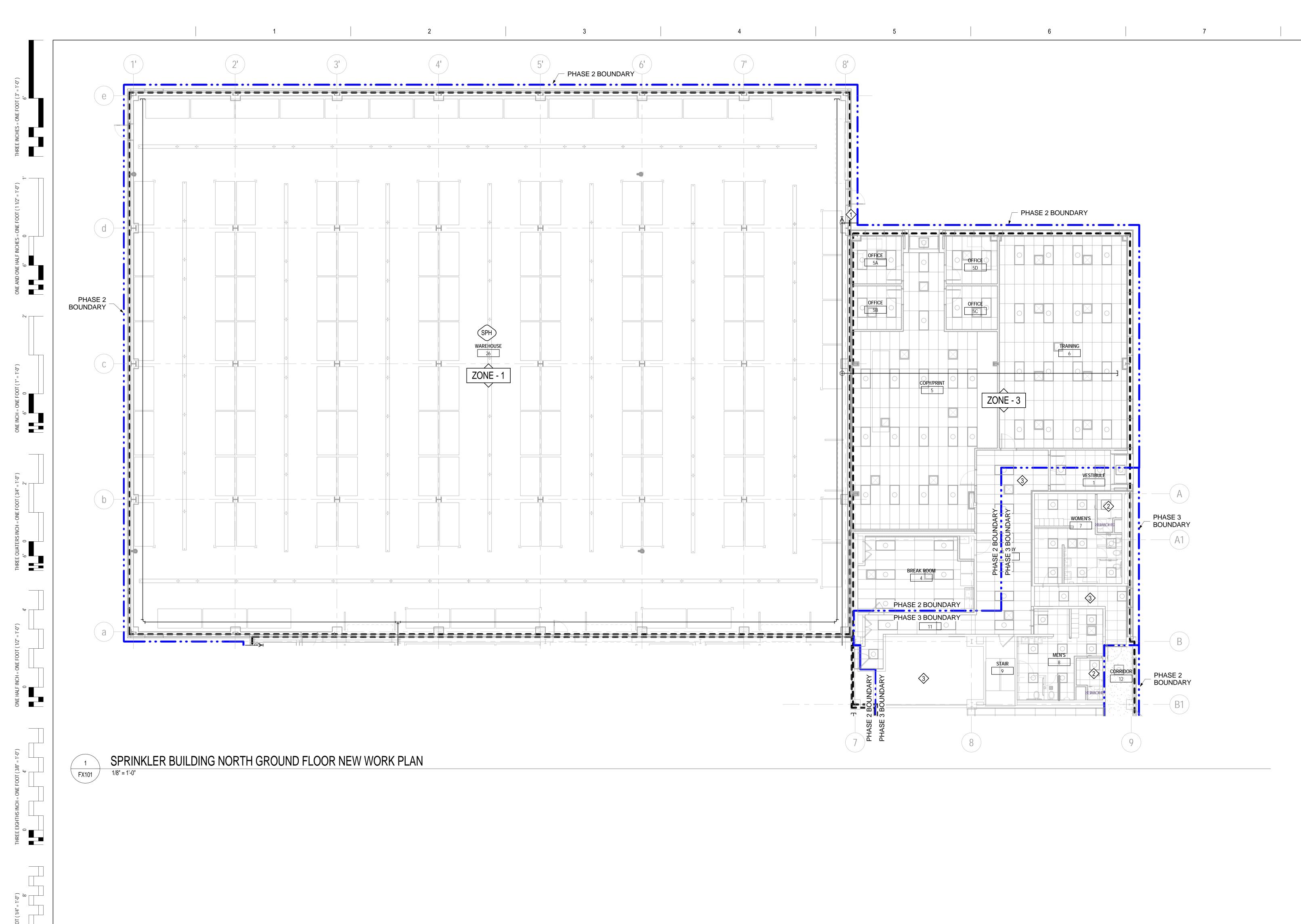
63 PSI **RESIDUAL:**

FLOW TEST WITH VA COTR.

CONTRACTOR IS RESPONSIBLE FOR PERFORMING A WATER SUPPLY FLOW TEST TO VERIFY THIS INFORMATION. COORDINATE



FULLY SPRINKLERED Drawing Title Approved: Chief, Facilities and Engineering DEPARTMENT OF VETERANS AFFAIRS Approved: ARCHITECT / ENGINEERS / CONSULTANTS: SPRINKLER REFERENCE SHEET WAREHOUSE RENOVATION Woods Peacock Engineering Consultants OKKS Studios, Inc. Approved: Associate Chief for Maintenance And Operations, Perry Point & EXPANSION 5250 Cherokee Avenue, Suite 420 2 Wisconsin Circle / Suite 820 VA Project Number Alexandria, VA 22312-2052 Chevy Chase, MD 20815-7003 512-530 Tel: (703) 658-4400 Tel: (301) 718-0080 Fax: (703) 658-4404 Fax: (301) 718-9520 Approved: Engineering Projects Supervisor Nobis Engineering, Inc. www.okksstudios.com Approved: Associate Director for Operations 20410 Century Boulevard, Suite 230 Building Number | Checked | Drawn Drawing Number SCHEMATIC DESIGN (30%) SUBMISSION 03/25/15 As indicated CKC ACJ Henry Adams Consulting Germantown, MD 20874 The Protection Engineering Group DESIGN DEVELOPMENT (60%) SUBMISSION Engineers, LLC Tel: (301) 528 2010 Approved: Infection Control Officer CONSTRUCTION DOCUMENTS (90% SUBMISSION) 11/23/15 600 Baltimore Avenue, 4th Floor 2809 Boston Street, Suite 7 Baltimore, MD 21224 USA Baltimore, MD 21204 BID DOCUMENTS SUBMISSION 03/17/16 I certify that these documents were prepared or approved Approved: Director, Medical Center Tel: (443) 708-4096 Tel: (410) 296-6500 by me, and that I am duly licensed professional engineer PERRY POINT, MD under the laws of the State of Maryland, License No. Fax: (410) 296-6501 41369, expiration date 01/05/2018.



E EIGHTH INCH = ONE FOOT (1/8" = 1'-0")

4' 8' 16'

SHEET NOTES

1. REFER TO SHEET FX001 FOR SYMBOLS AND ABBREVIATIONS.

2. PROVIDE NEW SPRINKLER PROTECTION INCLUDING SPRINKLERS, PIPING, HANGERS AND ASSOCIATED EQUIPMENT THROUGHTOUT BUILDING 360 IN ACCORDANCE WITH NFPA 13. PROVIDE SPRINKLER PROTECTION FOR THESE AREAS PER THE HAZARD CLASSIFICATION, DESIGN CRITERIA AND ZONING AS IDENTIFIED.

3. SPRINKLER CROSS MAIN AND BRANCHLINES ARE SHOWN FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE THEIR OWN SPRINKLER PIPING CONFIGURATION THAT MEETS ALL HYDRAULIC CALCULATION REQUIREMENTS.

4. COMPLY WITH CONSTRUCTION PHASING AND SEQUENCING NOTES ON SHEET G005.

5. NEW SPRINKLER WORK FOR EACH PHASE SHALL BE INSTALLED AND ACTIVATED PRIOR TO COMMENCING DEMOLITION WORK IN THAT PHASE. REFER TO SHEET NOTE 5 ON SHEET FX102.

KEYNOTES

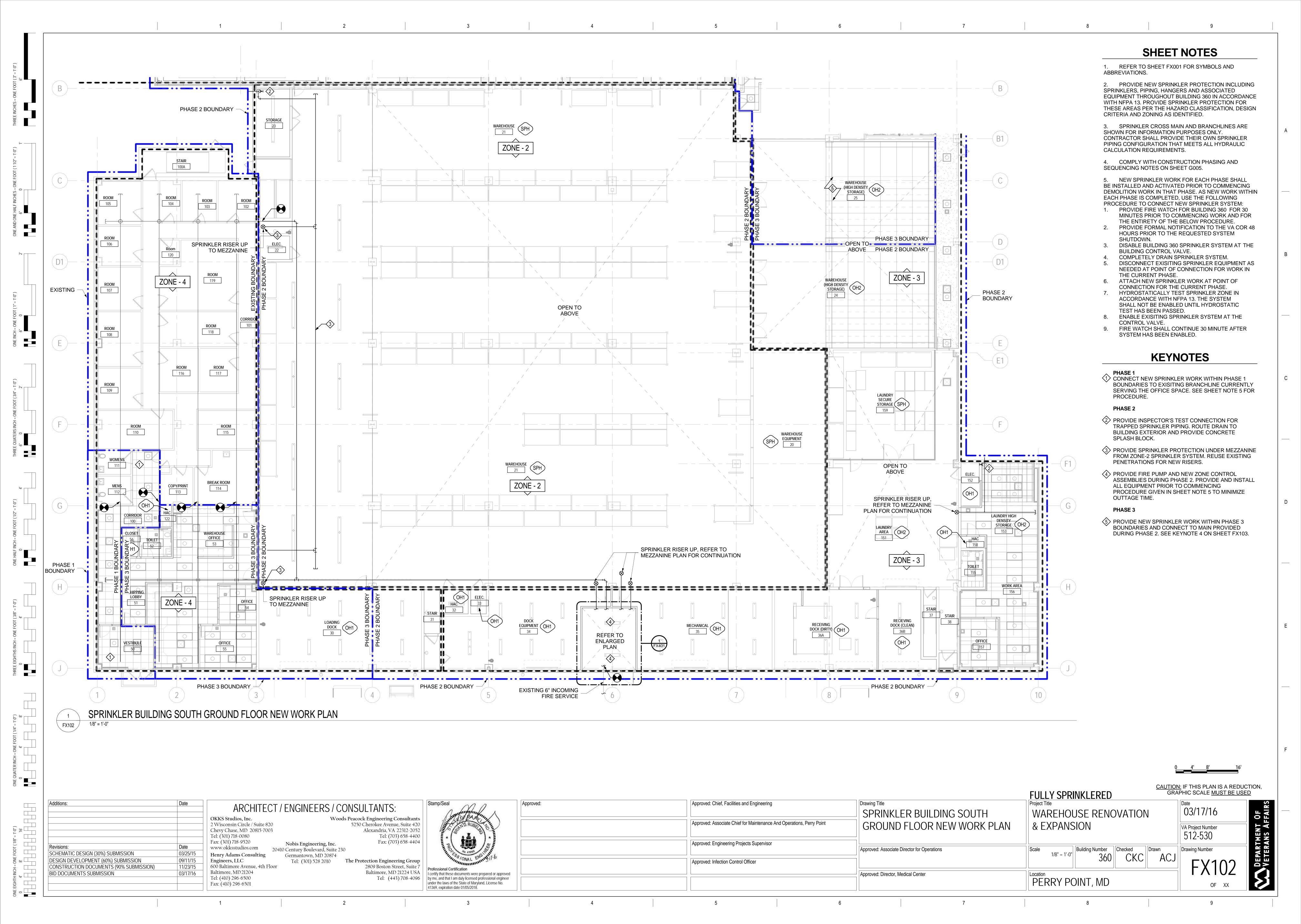
PROVIDE DRAIN CONNECTION FOR TRAPPED SPRINKLER PIPING. ROUTE DRAIN TO BUILDING EXTERIOR AND PROVIDE CONCRETE SPLASH BLOCK.

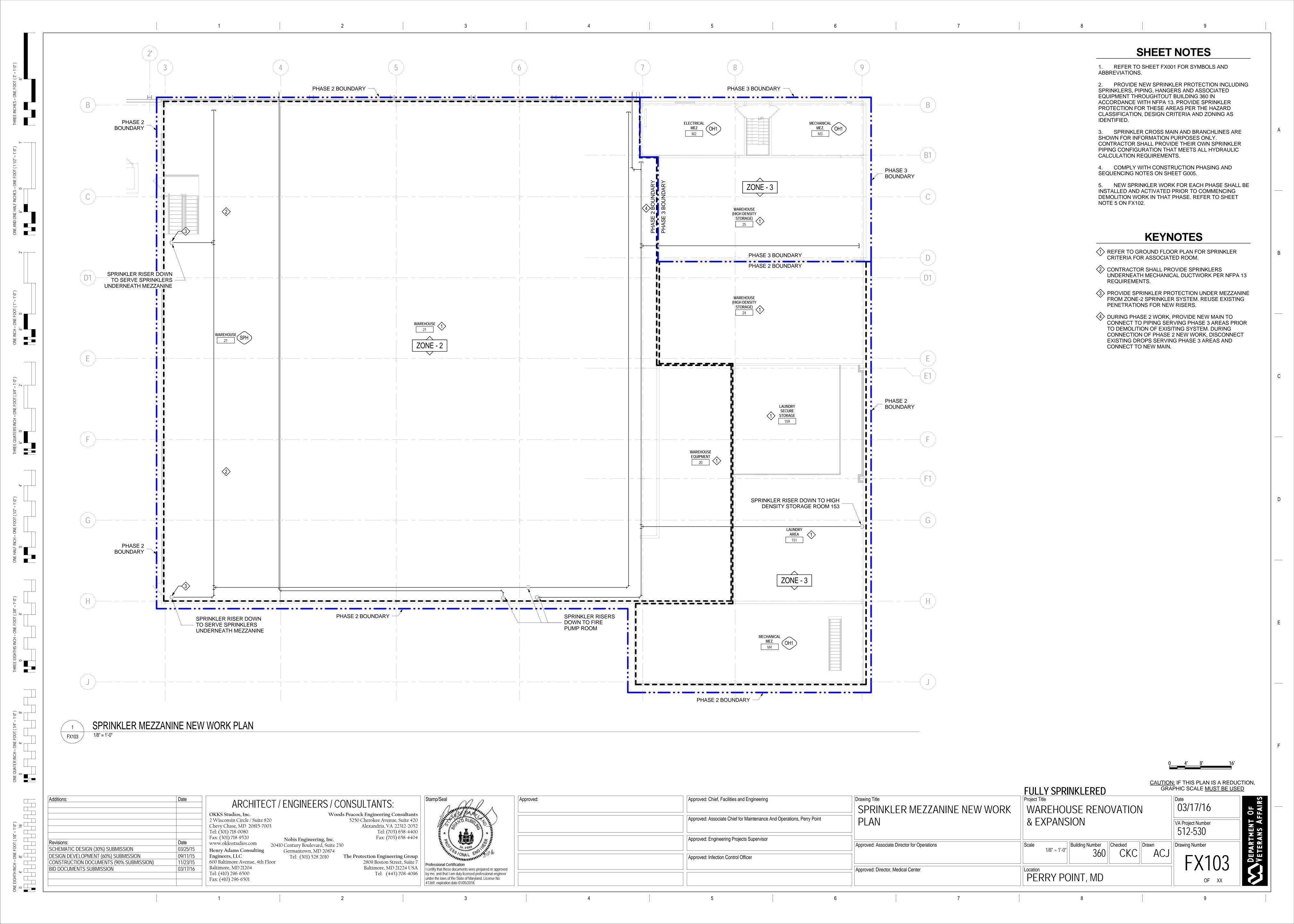
PROVIDE CORROSION RESISTANT SPRINKLER HEADS IN AND NEAR THE SHOWERS. PREVENT PIPING, FITTINGS AND/OR THREADS FROM BEING EXPOSED TO WET ENVIRONMENT.

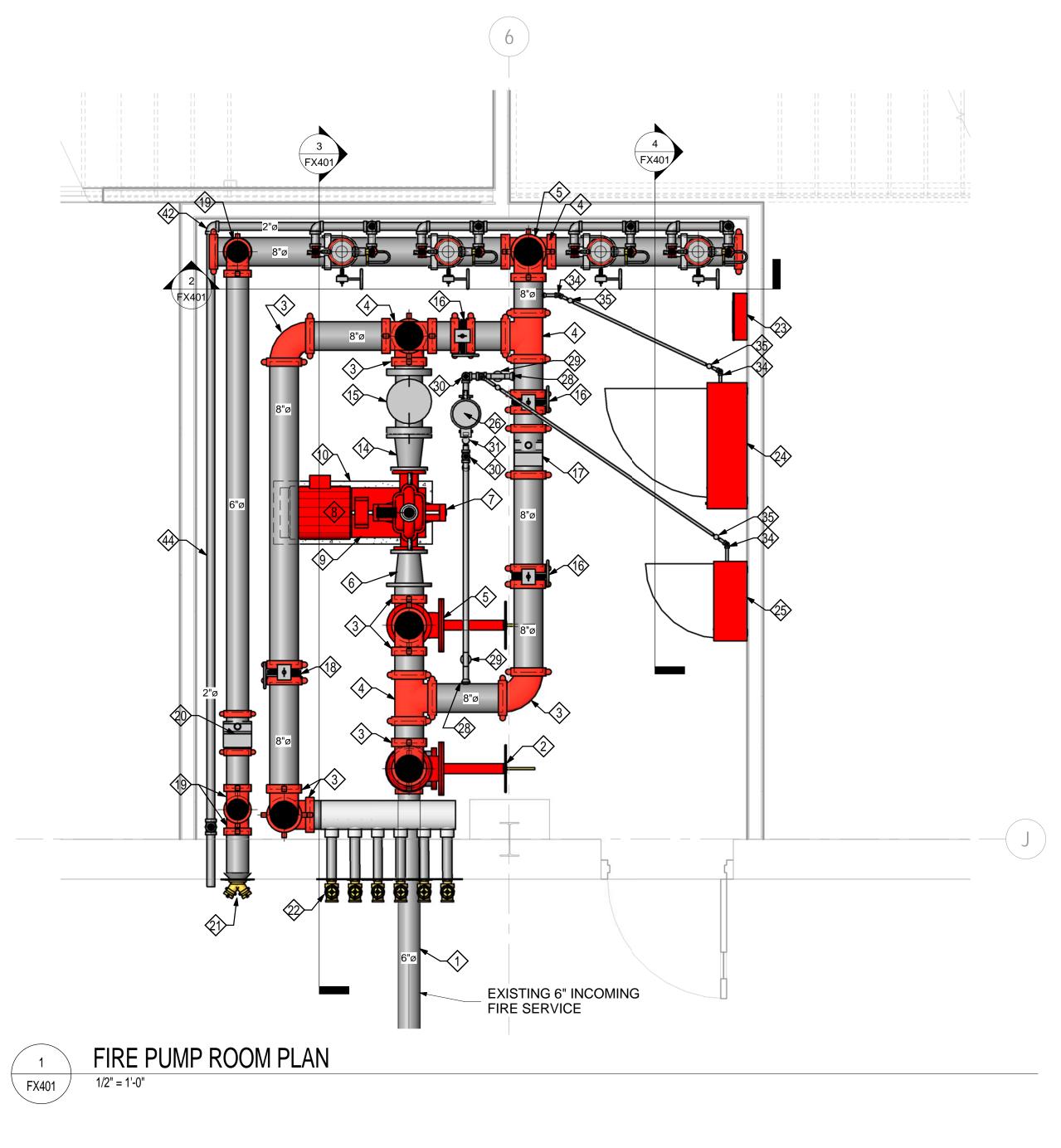
PROVIDE NEW SPRINKLER WORK WITHIN PHASE 3
BOUNDARIES AND CONNECT TO MAIN PROVIDED
DURING PHASE 2. SEE KEYNOTE 4 ON SHEET FX103.

0 4' 8' 16'

<u>CAUTION:</u> IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE <u>MUST BE USED</u> **FULLY SPRINKLERED** DEPARTMENT OF VETERANS AFFAIRS Approved: Chief, Facilities and Engineering Drawing Title Approved: ARCHITECT / ENGINEERS / CONSULTANTS: 03/17/16 SPRINKLER BUILDING NORTH WAREHOUSE RENOVATION Woods Peacock Engineering Consultants 5250 Cherokee Avenue, Suite 420 OKKS Studios, Inc. Approved: Associate Chief for Maintenance And Operations, Perry Point GROUND FLOOR NEW WORK PLAN & EXPANSION 2 Wisconsin Circle / Suite 820 VA Project Number Alexandria, VA 22312-2052 Chevy Chase, MD 20815-7003 512-530 Tel: (703) 658-4400 Fax: (703) 658-4404 Tel: (301) 718-0080 Fax: (301) 718-9520 Approved: Engineering Projects Supervisor Nobis Engineering, Inc. www.okksstudios.com Approved: Associate Director for Operations Building Number | Checked | Drawn 20410 Century Boulevard, Suite 230 SCHEMATIC DESIGN (30%) SUBMISSION 03/25/15 CKC ACJ Henry Adams Consulting Germantown, MD 20874 09/11/15 The Protection Engineering Group DESIGN DEVELOPMENT (60%) SUBMISSION Engineers, LLC Tel: (301) 528 2010 Approved: Infection Control Officer 11/23/15 CONSTRUCTION DOCUMENTS (90% SUBMISSION) 600 Baltimore Avenue, 4th Floor 2809 Boston Street, Suite 7 Baltimore, MD 21204 Baltimore, MD 21224 USA BID DOCUMENTS SUBMISSION 03/17/16 I certify that these documents were prepared or approved Approved: Director, Medical Center Tel: (443) 708-4096 Tel: (410) 296-6500 by me, and that I am duly licensed professional engineer PERRY POINT, MD under the laws of the State of Maryland, License No. Fax: (410) 296-6501 41369, expiration date 01/05/2018.







Ground Floor (37'-6") 0' - 2 1/32" Dock Driveway -3' - 9 31/32"

FIRE PUMP ROOM SECTION 1/2" = 1'-0"

FX401

E EIGHTH INCH = ONE FOOT (1/8" = 1'-0")

4' 8' 16'

OKKS Studios, Inc. 2 Wisconsin Circle / Suite 820 Chevy Chase, MD 20815-7003 Tel: (301) 718-0080 Fax: (301) 718-9520 www.okksstudios.com SCHEMATIC DESIGN (30%) SUBMISSION 03/25/15 Henry Adams Consulting DESIGN DEVELOPMENT (60%) SUBMISSION Engineers, LLC CONSTRUCTION DOCUMENTS (90% SUBMISSION) 11/23/15 600 Baltimore Avenue, 4th Floor Baltimore, MD 21204 BID DOCUMENTS SUBMISSION Tel: (410) 296-6500 Fax: (410) 296-6501



Nobis Engineering, Inc.

Germantown, MD 20874

Tel: (301) 528 2010

20410 Century Boulevard, Suite 230

I certify that these documents were prepared or approved Tel: (443) 708-4096 by me, and that I am duly licensed professional engineer under the laws of the State of Maryland, License No.

Drawing Title Approved: Chief, Facilities and Engineering Approved: FIRE PUMP PLAN Approved: Associate Chief for Maintenance And Operations, Perry Point Approved: Engineering Projects Supervisor Approved: Associate Director for Operations Approved: Infection Control Officer Approved: Director, Medical Center

CONTROLLER

FIRE PUMP ROOM SECTION

1/2" = 1'-0"

∖ FX401 /

PUMP ROOM ELEVATION - RISER MANIFOLD

FX401

SHEET NOTES

ALL ELECTRICAL WIRING TO BE PROVIDED BY ELECTRICAL CONTRACTOR.

THIS DRAWING IS INTENT FOR USE AS A SCHEMATIC PIPING PLAN TO ILLUSTRATE CORRECT PLACEMENT, AND RELATIVE POSITION OF EQUIPMENT. ACTUAL ON SITE PIPING MAY VARY AFTER COORDINATION WITH ARCHITECTURAL STRUCTURAL, AND MECHAINCAL FEATURES. ARRANGEMENT OF PIPING AND FITTINGS SHALL CONFORM TO NFPA-20-2013 REQUIREMENTS.

ENSURE THAT THE FIRE PUMP SUCTION PIPING IS INSTALLED IN ACCORDANCE WITH NFPA 20. ENSURE THAT ANY ELBOWS WITH CENTERLINES PARALLEL TO THE PUMP SHAFT ARE LOCATED AT A DISTANCE OF AT LEAST 10 TIMES THE SUCTION PIPE DIAMETER AWAY FROM THE PUMP SUCTION.

4. ROUTE ALL DRAIN PIPING WITHIN THE FIRE PUMP ROOM TO THE BUILDING EXTERIOR OR NEAREST FLOOR DRAIN.

FIRE PUMP LEGEND

1 EXISTING UNDERGROUND 6" INCOMING FIRE SERVICE

2 8" FLANGED DOUBLE CHECK BACKFLOW PREVENTER WITH O.S.&Y. VALVES

3 8" GROOVED 90° ELBOW

LOWER ROOF 14' - 2 1/32"

round Floor (37'-6") 0' - 2 1/32"

Dock Driveway

Ground Floor (37'-6") 0' - 2 1/32"

Dock Driveway

-3' - 9 31/32"

-3' - 9 31/32"

4 8" GROOVED TEE 5 8" FLANGED O.S.&Y. VALVE WITH SUPERVISORY

6 8"x6" FLANGES ECCENTRIC REDUCER

SWITCH - SUPERVISED OPEN

7 HORIZONTAL SPLIT CASE ELECTRIC MOTOR DRIVEN 1250 GPM @ 60 PSI FIRE PUMP

8 ELECTRIC FIRE PUMP MOTOR - XX HP, XXXV

9 FIRE PUMP STEEL DRIP RIM BASE

10 CONCRETE FIRE PUMP PAD, SEE DETAIL 7 ON SHEET

11 PUMP SUPPLY PRESSURE GAUGE 0-250 PSI WITH 1/4" THREADED PETCOCK VALVE

12 AUTOMATIC AIR RELIEF VALVE (DO NOT PIPE DISCHARGE TO DRAIN)

13 PUMP DISCHARGE PRESSURE GAUGE 0-250 PSI WITH

1/4" THREADED PETCOCK VALVE

14 6"x8" FLANGED CONCENTRIC INCREASER

15 8" FLANGED CHECK VALVE

16 8" GROOVED BUTTERFLY VALVE - SUPERVISED OPEN

17 8" GROOVED CHECK VALVE

18 8" GROOVED BUTTERFLY VALVE -SUPVISED CLOSED

19 6" GROOVED 90° ELBOW

20 6" GROOVED CHECK VALVE

21 2 1/2"x 2 1/2"x 6" FIRE DEPARTMENT CONNECTION

22 (6) 2 1/2" DIAMETER OUTLET HOSE VALVE WALL MOUNTED TEST HEADER

23 SPARE SPRINKLER CABINET

24 FIRE PUMP CONTROLLER WITH EMERGENCY POWER CAPABILITY

25 JOCKEY PUMP CONTROLLER

26 ELECTRIC JOCKEY PUMP, 3/4 HP, 480V

27 CONCRETE JOCKEY PUMP PAD

28 1 1/4" WELDED THREADED OUTLET

29 1 1/4" THREADED INDICATING TYPE VALVE WITH SUPERVISORY SWITCH - SUPERVISED OPEN

30 1 1/4" THREADED 90° ELBOW

31 1 1/4" THREADED SWING CHECK VALVE

33 1 1/4"x 1 1/4"x 1/2" THREADED TEE

32 1 1/4" THREADED Y STRAINER

34 1/2" THREADED BRASS ELBOW

35 1/2" THREADED BRASS SWING CHECK VALVE

36 8" GROOVED CAP

37 6" WELDED OUTLET

38 6" GROOVED BUTTERFLY VALVE WITH SUPERVISORY SWITCH - SUPERVISED OPEN

39 6" GROOVED RISER CHECK VALVE ASSEMBLY

40 6" WATERFLOW SWITCH

41 PRESSURE RELIEF / TEST-DRAIN VALVE

42 2" THREADED 90° ELBOW

43 2" THREADED TEE

44 2" DRAIN ROUTED TO EXTERIOR

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED **FULLY SPRINKLERED** 03/17/16 WAREHOUSE RENOVATION & EXPANSION VA Project Number

Building Number Checked Drawn

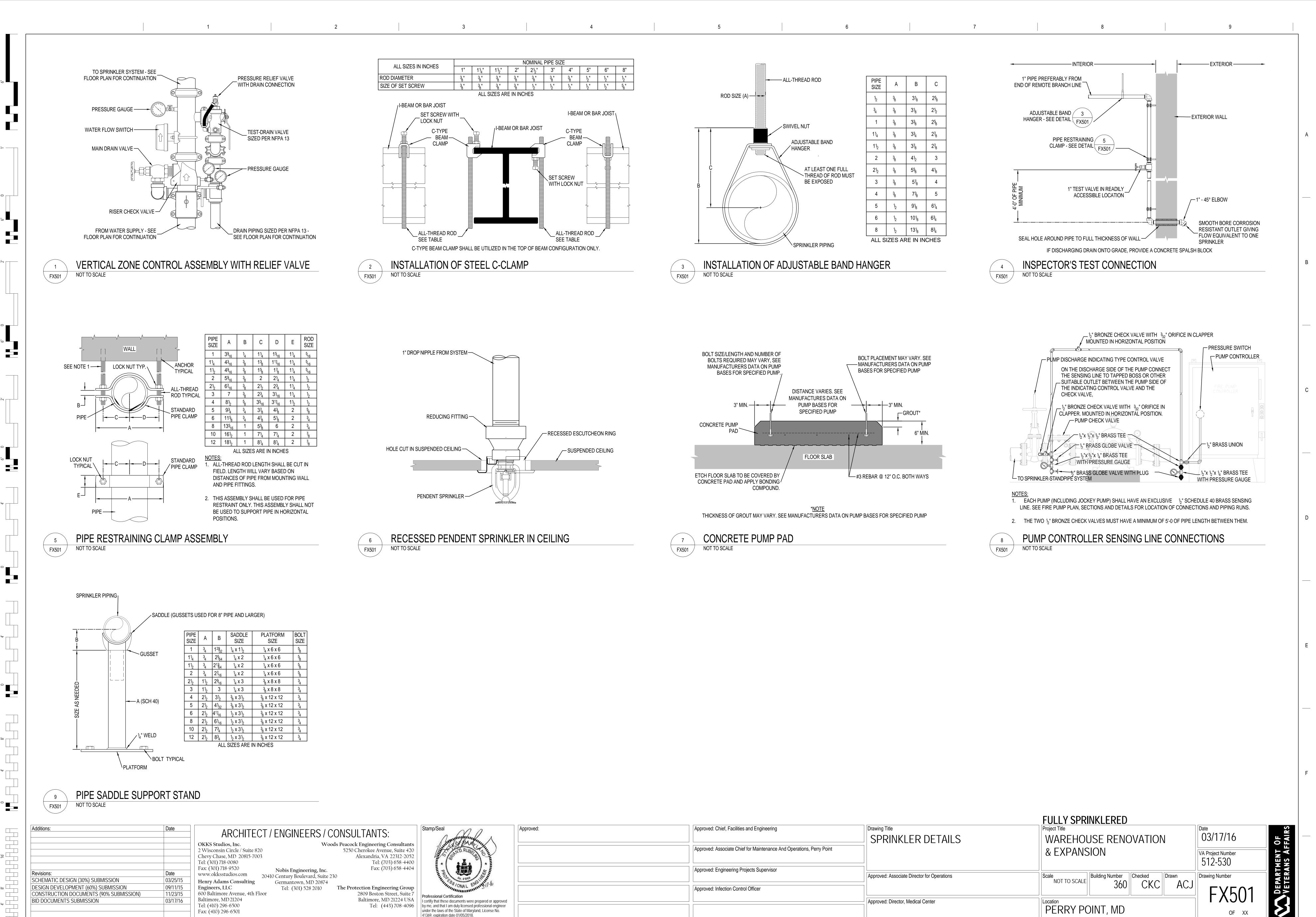
1/2" = 1'-0"

PERRY POINT, MD

512-530 Drawing Number

DEPARTMENT OF VETERANS AFFAIRS

360 CKC ACJ FX401



Approved: Associate Chief for Maintenance And Operations, Perry Point

Approved: Associate Director for Operations

Approved: Director, Medical Center

Approved: Engineering Projects Supervisor

Approved: Infection Control Officer

& EXPANSION

NOT TO SCALE

PERRY POINT, MD

Building Number Checked Drawn

CKC ACJ

VA Project Number

512-530

Drawing Number

E EIGHTH INCH = ONE FOOT (1/8" = 1'-0")

4'
8'
16'

SCHEMATIC DESIGN (30%) SUBMISSION

BID DOCUMENTS SUBMISSION

DESIGN DEVELOPMENT (60%) SUBMISSION

CONSTRUCTION DOCUMENTS (90% SUBMISSION)

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11/23/15

03/17/16

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The Protection Engineering Group

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Baltimore, MD 21224 USA

Tel: (443) 708-4096

I certify that these documents were prepared or approved

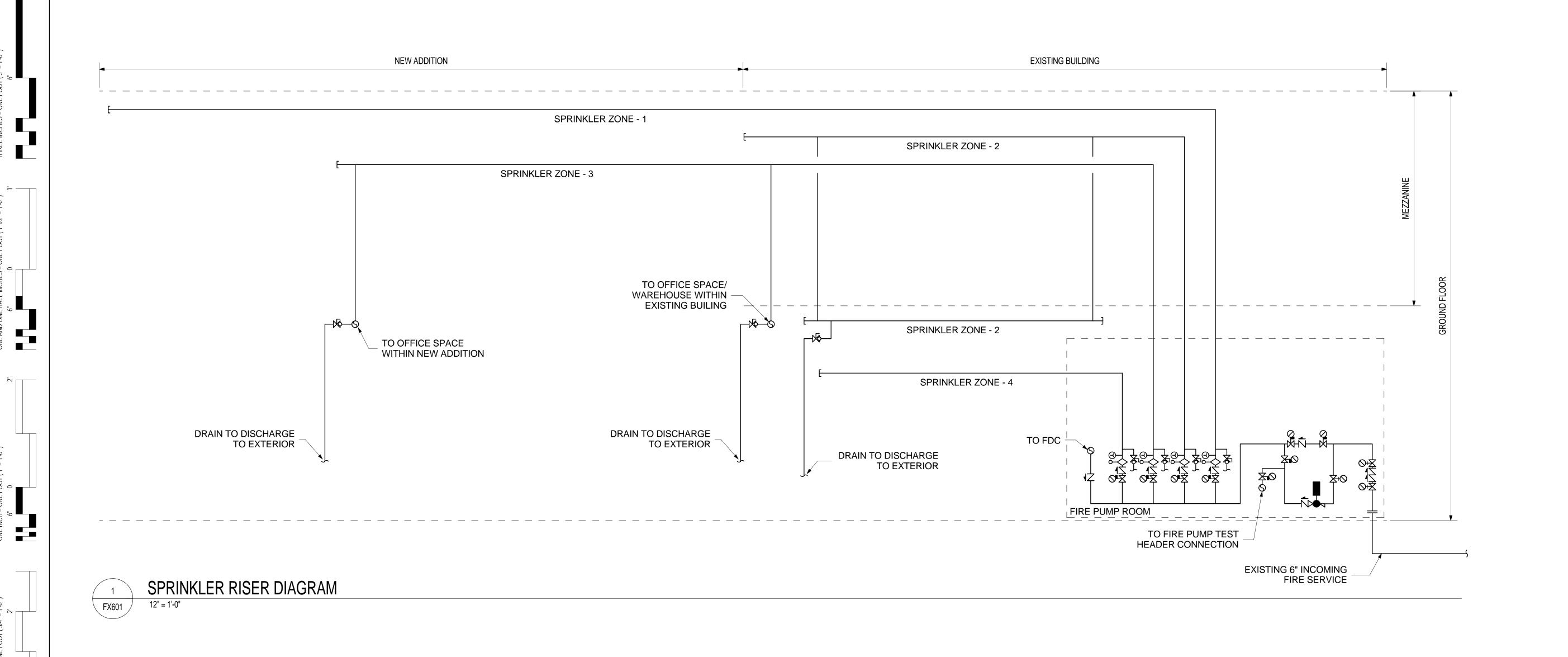
by me, and that I am duly licensed professional engineer

under the laws of the State of Maryland, License No.

41369, expiration date 01/05/2018.

Tel: (703) 658-4400

Fax: (703) 658-4404



SHEET NOTES

1. REFER TO SHEET FX001 FOR SYMBOLS AND ABBREVIATIONS.

2. RISER DIAGRAM IS SCHEMATIC IN NATURE, REFER TO SPRINKLER PLANS FOR EQUIPMENT LOCATIONS AND QUANTITIES. NOT ALL SPRINKLER EQUIPMENT IS SHOWN ON RISER DIAGRAM.

3. COMPLY WITH CONSTRUCTION PHASING AND SEQUENCING NOTES ON SHEET G005.

FULLY SPRINKLERED DEPARTMENT OF VETERANS AFFAIRS Drawing Title Approved: Approved: Chief, Facilities and Engineering ARCHITECT / ENGINEERS / CONSULTANTS: SPRINKLER RISER DIAGRAM WAREHOUSE RENOVATION Woods Peacock Engineering Consultants
5250 Cherokee Avenue, Suite 420
Alexandria, VA 22312-2052
Tel: (703) 658-4400
Fax: (703) 658-4404 OKKS Studios, Inc. Approved: Associate Chief for Maintenance And Operations, Perry Point 2 Wisconsin Circle / Suite 820 & EXPANSION VA Project Number 512-530 Chevy Chase, MD 20815-7003 Tel: (301) 718-0080 Fax: (301) 718-9520 Nobis Engineering, Inc. Approved: Engineering Projects Supervisor www.okksstudios.com Building Number Checked CKC ACJ Approved: Associate Director for Operations 20410 Century Boulevard, Suite 230 SCHEMATIC DESIGN (30%) SUBMISSION 03/25/15 Henry Adams Consulting Germantown, MD 20874 DESIGN DEVELOPMENT (60%) SUBMISSION The Protection Engineering Group Engineers, LLC Approved: Infection Control Officer Tel: (301) 528 2010 11/23/15 CONSTRUCTION DOCUMENTS (90% SUBMISSION) 600 Baltimore Avenue, 4th Floor 2809 Boston Street, Suite 7 Baltimore, MD 21224 USA Baltimore, MD 21204 BID DOCUMENTS SUBMISSION 03/17/16 Itimore, MD 21224 USA Tel: (443) 708-4096 I certify that these documents were prepared or approved by me, and that I am duly licensed professional engineer Approved: Director, Medical Center Tel: (410) 296-6500 PERRY POINT, MD under the laws of the State of Maryland, License No. 41369, expiration date 01/05/2018. Fax: (410) 296-6501